



SEQUENCE LISTING

<110> James, Kenneth D.
Rahdakrishnan, Balasingham
Malkar, Navdeep B.
Miller, Mark A.
Ekwuribe, Nnochiri N.

<120> NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF

<130> 9233.108

<140> US 10/723,933
<141> 2003-11-26

<150> US 60/429,151
<151> 2002-11-26

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<170> PatentIn version 3.2

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Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly
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Cys

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Ser Ser Ser Ser

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Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa

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Ser Pro Xaa Met Val
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Arg Val Leu Arg Arg
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Arg Val Leu Arg
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Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp	Arg	Ile
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Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa
				20				25

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Val	Leu	Arg	Arg	His
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<400> 20

Val Leu Arg Arg
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Cys Xaa

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Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro
20 25 30

Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn
35 40 45

His Leu Gln Gly Lys Leu Ser Glu Leu Gln Val Glu Gln Thr Ser Leu
50 55 60

Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg
65 70 75 80

Glu Val Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr
85 90 95

Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys
100 105 110

Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys
115 120 125

Lys Val Leu Arg Arg His
130

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Gln Gly Ser Gly
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Val Gln Gly Ser Gly
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Met Val Gln Gly Ser Gly
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Lys Met Val Gln Gly Ser Gly
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Pro Lys Met Val Gln Gly Ser Gly
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Ser Pro Lys Met Val Gln Gly Ser Gly
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Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro

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Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
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Gly	Leu	Gly	Cys	Asn	Xaa	Leu	Arg	Xaa	Tyr
			20					25	

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Asn	Val	Leu	Arg	Arg	Tyr
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Asn Val Leu Arg Arg
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Asn Val Leu Arg Tyr
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Asn Ser Phe Arg Tyr
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Arg Ile Lys Met Xaa Ser Xaa Ser Gly Leu Gly Cys
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Xaa Xaa Xaa Xaa Ser Gly
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<222> (4)..(4)

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Lys Xaa Xaa Xaa Xaa Ser Gly

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5

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<223> Xaa may be Arg, His, or Gln

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Pro Lys Xaa Xaa Xaa Xaa Ser Gly

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Ser Pro Lys Xaa Xaa Xaa Xaa Ser Gly
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Xaa Val Leu Arg
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<223> Xaa may be Arg or Lys

<400> 49

Xaa Val Leu Arg Xaa

1 5

<210> 50

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa may be Asn or Lys

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> Xaa may be Arg or Lys

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa may be Tyr or His

<400> 50

Xaa Val Leu Arg Xaa Xaa

1 5

<210> 51

<211> 26

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (21)..(21)
 <223> Xaa cannot be Asn if amino acid 25 is Arg and amino acid 26 is Tyr

<220>
 <221> MISC_FEATURE
 <222> (25)..(25)
 <223> Xaa cannot be Arg if amino acid 21 is Asn and amino acid 26 is Tyr

<220>
 <221> MISC_FEATURE
 <222> (26)..(26)
 <223> Xaa cannot be Tyr if amino acid 21 is Asn and amino acid 25 is Arg

<400> 51

Asp	Ser	Gly	Cys	Phe	Gly	Arg	Arg	Leu	Asp	Arg	Ile	Gly	Ser	Leu	Ser
1				5				10						15	

Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Xaa	Xaa
			20					25	

<210> 52
 <211> 6
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide sequence

<400> 52

Asn	Val	Leu	Arg	Arg	Tyr
1				5	

<210> 53
 <211> 32
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (1)..(9)
 <223> Polypeptide may be present or absent

<220>
 <221> MISC_FEATURE
 <222> (7)..(9)
 <223> Polypeptide may be present or absent

<400> 53

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
 20 25 30

<210> 54
 <211> 9
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide sequence

<400> 54

Ser Pro Lys Met Val Gln Gly Ser Gly
 1 5

<210> 55
 <211> 10
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Leader sequence

<400> 55

His His His His His His Ala Asp Gly Glu
 1 5 10

<210> 56
 <211> 4
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Leader sequence

<400> 56

Ala Asp Gly Glu
 1

<210> 57
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Spacer sequence

<400> 57

Arg Arg Asp Ala Glu Asp Pro Arg
1 5

<210> 58
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> Leader sequence

<400> 58

Glu Gly Asp Arg Arg
1 5

<210> 59
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Extension sequence

<400> 59

His His His His His His Glu Gly Asp Arg Arg
1 5 10

<210> 60
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Spacer sequence

<400> 60

Arg Arg Asp Ala Glu Asp Arg Arg
1 5

<210> 61

<211> 12
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Extension sequence

 <220>
 <221> misc_feature
 <222> (7)..(7)
 <223> Xaa can be any naturally occurring amino acid

 <400> 61

His His His His His His Xaa Glu Gly Asp Arg Arg
 1 5 10

<210> 62
 <211> 8
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Spacer sequence

 <400> 62

Arg Gly Asp Ala Glu Asp Pro Arg
 1 5

<210> 63
 <211> 5
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Leader sequence

 <400> 63

Glu Gly Asp Pro Arg
 1 5

<210> 64
 <211> 11
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Extension sequence

 <400> 64

His His His His His His Glu Gly Asp Pro Arg
 1 5 10

<210> 65
 <211> 9
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Spacer sequence

<400> 65

Ala Arg Gly Asp Ala Glu Asp Pro Arg
 1 5

<210> 66
 <211> 9
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Extension sequence

<220>
 <221> misc_feature
 <222> (7)..(7)
 <223> Xaa can be any naturally occurring amino acid

<400> 66

His His His His His His Xaa Met Met
 1 5

<210> 67
 <211> 5
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Spacer sequence

<400> 67

Asp Asp Ala Gly Glu
 1 5

<210> 68
 <211> 10
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Extension sequence

 <400> 68

 His His His His His His Ala Asp Gly Glu
 1 5 10

<210> 69
 <211> 4
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Spacer sequence

<400> 69

Glu Ala Gly Glu
 1

<210> 70
 <211> 4
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Leader sequence

<400> 70

Glu Gly Asp Ala
 1

<210> 71
 <211> 11
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Extension sequence

<400> 71

Glu Gly Asp Ala His His His His His His Glu
 1 5 10

<210> 72
 <211> 11
 <212> PRT
 <213> Artificial sequence

<220>

<223> Extension sequence

<400> 72

Glu His His His His His His Ala Asp Gly Glu
1 5 10

<210> 73

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> DISULFID

<222> (10)..(26)

<223> Disulfide bond may be present or absent

<400> 73

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
20 25 30

<210> 74

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (1)..(1)

<223> A modifying moiety may be present

<220>

<221> MISC_FEATURE

<222> (31)..(31)

<223> Xaa is not Arg

<400> 74

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Xaa Tyr
20 25 30

<210> 75

<211> 32

<212> PRT
<213> Canis familiaris

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (31)..(31)
<223> Xaa can be any naturally occurring amino acid

<400> 75

Ser Pro Xaa Met Met His Xaa Gly Gly Cys Phe Gly Arg Arg Leu Asp
1 5 10 15

Arg Ile Gly Ser Leu Ser Gly Leu Gly Cys Asn Val Leu Arg Xaa Tyr
20 25 30

<210> 76
<211> 38
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (11)..(11)
<223> Xaa can be any naturally occurring amino acid

<400> 76

Glu Val Xaa Tyr Asp Pro Cys Phe Gly His Xaa Ile Asp Arg Ile Asn
1 5 10 15

His Val Ser Asn Leu Gly Cys Pro Ser Leu Arg Asp Pro Arg Pro Asn
20 25 30

Ala Pro Ser Thr Ser Ala
35

<210> 77
<211> 22
<212> PRT
<213> Homo sapiens

<400> 77

Gly Leu Ser Lys Gly Cys Phe Gly Leu Lys Leu Asp Arg Ile Gly Ser
1 5 10 15

Met Ser Gly Leu Gly Cys
20

<210> 78
<211> 28
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa can be any naturally occurring amino acid

<400> 78

Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Xaa Asp Arg Ile Gly
1 5 10 15

Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20 25

<210> 79
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa may be any amino acid other than Lys

<400> 79

Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly
1 5 10 15

Cys

<210> 80
<211> 36
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide

<220>
<221> MISC_FEATURE
<222> (27)..(27)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (29)..(29)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (30)..(30)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (32)..(32)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>
<221> MISC_FEATURE
<222> (33)..(33)
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>

<221> MISC_FEATURE
 <222> (34)..(34)
 <223> Xaa may be any naturally occurring amino acid, and may be present
 or absent

<220>
 <221> misc_feature
 <222> (35)..(35)
 <223> Xaa can be any naturally occurring amino acid

<220>
 <221> MISC_FEATURE
 <222> (36)..(36)
 <223> Xaa may be any naturally occurring amino acid, and may be present
 or absent

<400> 80

Ser	Pro	Arg	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Lys	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		

Xaa	Xaa	Xaa	Xaa
			35

<210> 81
 <211> .6
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide sequence

<400> 81

Arg	Val	Leu	Arg	Arg	His
1				5	

<210> 82
 <211> 32
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> misc_feature
 <222> (3)..(3)
 <223> Xaa can be any naturally occurring amino acid

<220>
 <221> MISC_FEATURE
 <222> (14)..(14)
 <223> Xaa may be any amino acid other than Lys

<220>
 <221> misc_feature
 <222> (27)..(27)
 <223> Xaa can be any naturally occurring amino acid

<400> 82

Ser	Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Arg	His
			20					25					30		

<210> 83
 <211> 32
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MOD_RES
 <222> (1)..(1)

<220>
 <221> MISC_FEATURE
 <222> (14)..(14)
 <223> Xaa is not Lys

<220>
 <221> MISC_FEATURE
 <222> (27)..(27)
 <223> Xaa is not Lys

<400> 83

Ser	Pro	Lys	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Arg	His
			20					25					30		

<210> 84
 <211> 19
 <212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>

<221> misc_feature

<222> (1)..(1)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (19)..(19)

<223> Xaa can be any naturally occurring amino acid

<400> 84

Xaa Cys Phe Gly Arg Arg Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
1 5 10 15

Gly Cys Xaa

<210> 85

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 85

Ser Pro Lys Met Val Gln Gly Ser Gly Cys
1 5 10

<210> 86

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 86

Pro Lys Met Val Gln Gly Ser Gly Cys
1 5

<210> 87

<211> 8

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 87

Lys Met Val Gln Gly Ser Gly Cys
1 5

<210> 88

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 88

Met Val Gln Gly Ser Gly Cys
1 5

<210> 89

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 89

Val Gln Gly Ser Gly Cys
1 5

<210> 90

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 90

Gln Gly Ser Gly Cys
1 5

<210> 91

<211> 4

<212> PRT

<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 91

Gly Ser Gly Cys
1

<210> 92
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 92

Ser Pro Lys Met
1

<210> 93
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 93

Ser Pro Lys Met Val
1 5

<210> 94
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 94

Ser Pro Lys Met Val Gln
1 5

<210> 95
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 95

Lys Met Val Gln
1

<210> 96
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 96.

Lys Met Val Gln Gly
1 5

<210> 97
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 97

Lys Met Val Gln Gly Ser
1 5

<210> 98
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide sequence

<400> 98

Lys Met Val Gln Gly Ser Gly
1 5

<210> 99
<211> 8
<212> PRT
<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 99

Lys Met Val Gln Gly Ser Gly Cys
1 5

<210> 100

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 100

Lys Val Leu Arg Arg His
1 5

<210> 101

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 101

Lys Val Leu Arg Arg
1 5

<210> 102

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 102

Lys Val Leu Arg
1

<210> 103

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 103

Arg Val Leu Arg Arg His
1 5

<210> 104

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 104

Arg Val Leu Arg Arg
1 5

<210> 105

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 105

Arg Val Leu Arg
1

<210> 106

<211> 29

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is not Lys

<400> 106

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu
20 25

<210> 107
 <211> 26
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa is not Lys

<400> 107

Ser	Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Lys	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys
			20					25	

<210> 108
 <211> 33
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)
 <223> Xaa may be any naturally occurring amino acid and may be present

or absent

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa may be any naturally occurring amino acid and may be present
or absent

<400> 108

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Arg Met
1 5 10 15

Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Arg Val Leu Arg Arg
20 25 30

His

<210> 109
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide

<220>
<221> misc_feature
<222> (5)..(5)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa may be Ser or Lys

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa is Ser and may be present or absent

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is Ser and may be present or absent

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is Ser and may be present or absent

<400> 109

Cys	Phe	Gly	Arg	Xaa	Met	Asp	Arg	Ile	Xaa	Xaa	Xaa	Xaa	Gly	Leu	Gly
1				5					10					15	

Cys

<210> 110
<211> 32
<212> PRT
<213> Artificial sequence

<220>
<223> Natriuretic peptide

<220>
<221> MISC_FEATURE
<222> (30)..(30)
<223> Xaa is not Arg

<400> 110

Ser	Pro	Lys	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Lys	Met	Asp
1				5					10					15	

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Arg Xaa Arg His
 20 25 30

<210> 111
 <211> 32
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (27)..(27)
 <223> Xaa is not Lys

<400> 111

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg His
 20 25 30

<210> 112
 <211> 33
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (33)..(33)
 <223> Xaa may be Lys or Cys

<400> 112

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His
 20 25 30

Xaa

<210> 113
 <211> 26
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa is not Lys

<220>
 <221> MISC_FEATURE
 <222> (14)..(14)
 <223> Xaa is not Lys

<220>
 <221> MISC_FEATURE
 <222> (23)..(23)
 <223> Xaa may be Gly, Met, Leu, Phe, Ile, or a conservative substitution thereof

<220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> Xaa may be Leu, Trp, Tyr, Phe, or a conservative substitution thereof

<220>
 <221> MISC_FEATURE
 <222> (25)..(25)
 <223> Xaa may be Gly, Arg, or a conservative substitution thereof

<400> 113

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met Asp
 1 5 10 15

Arg Ile Ser Ser Ser Ser Xaa Xaa Xaa Cys
 20 25

<210> 114
 <211> 23
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Natriuretic peptide

<220>

<221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa may be Thr, Ala, Arg, His, Pro, or Glu

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa may be Lys, Asn, Arg, Ser, Asp, or Pro

<220>
 <221> MOD_RES
 <222> (12)..(12)
 <223> Methylation if Xaa is Asn

<220>
 <221> MISC_FEATURE
 <222> (17)..(17)
 <223> Xaa is not Gly

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Xaa may be Orn, Har, p-amidinophenyl Ala, or Ile

<400> 114

Lys Cys Phe Lys Gly Lys Asn Asp Arg Xaa Lys Xaa Gln Ser Gly Leu
 1 5 10 15

Xaa Cys Asn Ser Phe Lys Tyr
 20

<210> 115
 <211> 195
 <212> PRT
 <213> Artificial sequence

<220>
 <223> BNP pro-pentapeptide

<400> 115

His His His His His His Glu Gly Asp Arg Arg Ser Pro Lys Met Val
 1 5 10 15

Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser
 20 25 30

Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His Arg Arg Asp Ala Glu
 35 40 45

Asp Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met

<223> Xaa may be Lys, Arg, or Gly, must be Lys if amino acids 2 and 26 are not Lys

<220>

<221> MISC_FEATURE

<222> (26)..(26)

<223> Xaa may be Lys, Arg, or Gly, must be Lys if amino acids 2 and 13 are not Lys

<400> 116

Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp	Arg
1				5					10					15	

Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg
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 20 25 30

Xaa Xaa Xaa Xaa Xaa
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Gln Gly Ser Gly
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Val Gln Gly Ser Gly
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Cys Lys

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Arg	Ile	Gly	Ser	Leu	Ser	Gly	Leu	Gly	Cys	Asn	Val	Leu	Arg	Xaa	Tyr
			20					25					30		